

## Environmental Protection Agency

## § 86.1865–12

or § 86.1014–84 for light-duty trucks and, if a manufacturer requests such a hearing, will be made only after an initial decision by the Presiding Officer.

[72 FR 8567, Feb. 26, 2007, as amended at 76 FR 19874, Apr. 8, 2011]

### § 86.1865–12 How to comply with the fleet average CO<sub>2</sub> standards.

(a) *Applicability.* (1) Unless otherwise exempted under the provisions of § 86.1801–12(j) or (k), CO<sub>2</sub> fleet average exhaust emission standards apply to:

(i) 2012 and later model year passenger automobiles and light trucks.

(ii) [Reserved]

(iii) Vehicles imported by ICI as defined in 40 CFR 85.1502.

(2) The terms “passenger automobile” and “light truck” as used in this section have the meanings as defined in § 86.1818–12.

(b) *Useful life requirements.* Full useful life requirements for CO<sub>2</sub> standards are defined in § 86.1818–12. There is not an intermediate useful life standard for CO<sub>2</sub> emissions.

(c) *Altitude.* Altitude requirements for CO<sub>2</sub> standards are provided in § 86.1810–09(f).

(d) *Small volume manufacturer certification procedures.* Certification procedures for small volume manufacturers are provided in § 86.1838. Small businesses meeting certain criteria may be exempted from the greenhouse gas emission standards in § 86.1818 according to the provisions of § 86.1801–12(j) or (k).

(e) *CO<sub>2</sub> fleet average exhaust emission standards.* The fleet average standards referred to in this section are the corporate fleet average CO<sub>2</sub> standards for passenger automobiles and light trucks set forth in § 86.1818–12(c) and (e). The fleet average CO<sub>2</sub> standards applicable in a given model year are calculated separately for passenger automobiles and light trucks for each manufacturer and each model year according to the provisions in § 86.1818–12. Each manufacturer must comply with the applicable CO<sub>2</sub> fleet average standard on a production-weighted average basis, for each separate averaging set, at the end of each model year, using the procedure described in paragraph (j) of this section.

(f) *In-use CO<sub>2</sub> standards.* In-use CO<sub>2</sub> exhaust emission standards applicable to each model type are provided in § 86.1818–12(d).

(g) *Durability procedures and method of determining deterioration factors (DFs).* Deterioration factors for CO<sub>2</sub> exhaust emission standards are provided in § 86.1823–08(m).

(h) *Vehicle test procedures.* (1) The test procedures for demonstrating compliance with CO<sub>2</sub> exhaust emission standards are contained in subpart B of this part and subpart B of part 600 of this chapter.

(2) Testing of all passenger automobiles and light trucks to determine compliance with CO<sub>2</sub> exhaust emission standards set forth in this section must be on a loaded vehicle weight (LVW) basis, as defined in § 86.1803–01.

(3) Testing for the purpose of providing certification data is required only at low altitude conditions. If hardware and software emission control strategies used during low altitude condition testing are not used similarly across all altitudes for in-use operation, the manufacturer must include a statement in the application for certification, in accordance with § 86.1844–01(d)(11) and § 86.1810–09(f), stating what the different strategies are and why they are used.

(i) *Calculating the fleet average carbon-related exhaust emissions.* (1) Manufacturers must compute separate production-weighted fleet average carbon-related exhaust emissions at the end of the model year for passenger automobiles and light trucks, using actual production, where production means vehicles produced and delivered for sale, and certifying model types to standards as defined in § 86.1818–12. The model type carbon-related exhaust emission results determined according to 40 CFR part 600 subpart F (in units of grams per mile rounded to the nearest whole number) become the certification standard for each model type.

(2) Manufacturers must separately calculate production-weighted fleet average carbon-related exhaust emissions levels for the following averaging sets according to the provisions of part 600 subpart F of this chapter:

(i) Passenger automobiles subject to the fleet average CO<sub>2</sub> standards specified in § 86.1818-12(c)(2);

(ii) Light trucks subject to the fleet average CO<sub>2</sub> standards specified in § 86.1818-12(c)(3);

(iii) Passenger automobiles subject to the Temporary Leadtime Allowance Alternative Standards specified in § 86.1818-12(e), if applicable; and

(iv) Light trucks subject to the Temporary Leadtime Allowance Alternative Standards specified in § 86.1818-12(e), if applicable.

(j) *Certification compliance and enforcement requirements for CO<sub>2</sub> exhaust emission standards.* (1) Compliance and enforcement requirements are provided in this section and § 86.1848-10(c)(9).

(2) The certificate issued for each test group requires all model types within that test group to meet the in-use emission standards to which each model type is certified as outlined in § 86.1818-12(d).

(3) Each manufacturer must comply with the applicable CO<sub>2</sub> fleet average standard on a production-weighted average basis, at the end of each model year, using the procedure described in paragraph (i) of this section.

(4) Each manufacturer must comply on an annual basis with the fleet average standards as follows:

(i) Manufacturers must report in their annual reports to the Agency that they met the relevant corporate average standard by showing that their production-weighted average CO<sub>2</sub> emissions levels of passenger automobiles and light trucks, as applicable, are at or below the applicable fleet average standard; or

(ii) If the production-weighted average is above the applicable fleet average standard, manufacturers must obtain and apply sufficient CO<sub>2</sub> credits as authorized under paragraph (k)(8) of this section. A manufacturer must show that they have offset any exceedence of the corporate average standard via the use of credits. Manufacturers must also include their credit balances or deficits in their annual report to the Agency.

(iii) If a manufacturer fails to meet the corporate average CO<sub>2</sub> standard for four consecutive years, the vehicles causing the corporate average

exceedence will be considered not covered by the certificate of conformity (*see* paragraph (k)(8) of this section). A manufacturer will be subject to penalties on an individual-vehicle basis for sale of vehicles not covered by a certificate.

(iv) EPA will review each manufacturer's production to designate the vehicles that caused the exceedence of the corporate average standard. EPA will designate as nonconforming those vehicles in test groups with the highest certification emission values first, continuing until reaching a number of vehicles equal to the calculated number of noncomplying vehicles as determined in paragraph (k)(8) of this section. In a group where only a portion of vehicles would be deemed nonconforming, EPA will determine the actual nonconforming vehicles by counting backwards from the last vehicle produced in that test group. Manufacturers will be liable for penalties for each vehicle sold that is not covered by a certificate.

(k) *Requirements for the CO<sub>2</sub> averaging, banking and trading (ABT) program.* (1) A manufacturer whose CO<sub>2</sub> fleet average emissions exceed the applicable standard must complete the calculation in paragraph (k)(4) of this section to determine the size of its CO<sub>2</sub> deficit. A manufacturer whose CO<sub>2</sub> fleet average emissions are less than the applicable standard must complete the calculation in paragraph (k)(4) of this section to generate CO<sub>2</sub> credits. In either case, the number of credits or debits must be rounded to the nearest whole number.

(2) There are no property rights associated with CO<sub>2</sub> credits generated under this subpart. Credits are a limited authorization to emit the designated amount of emissions. Nothing in this part or any other provision of law should be construed to limit EPA's authority to terminate or limit this authorization through a rulemaking.

(3) Each manufacturer must comply with the reporting and recordkeeping requirements of paragraph (l) of this section for CO<sub>2</sub> credits, including early credits. The averaging, banking and trading program is enforceable through

the certificate of conformity that allows the manufacturer to introduce any regulated vehicles into commerce.

(4) Credits are earned on the last day of the model year. Manufacturers must calculate, for a given model year and separately for passenger automobiles and light trucks, the number of credits or debits it has generated according to the following equation, rounded to the nearest megagram:

$$\text{CO}_2 \text{ Credits or Debits (Mg)} = [(\text{CO}_2 \text{ Standard—Manufacturer's Production-Weighted Fleet Average CO}_2 \text{ Emissions}) \times (\text{Total Number of Vehicles Produced}) \times (\text{Vehicle Lifetime Miles})] \div 1,000,000$$

Where:

CO<sub>2</sub> Standard = the applicable standard for the model year as determined by § 86.1818-12;

Manufacturer's Production-Weighted Fleet Average CO<sub>2</sub> Emissions = average calculated according to paragraph (i) of this section;

Total Number of Vehicles Produced = The number of vehicles domestically produced plus those imported as defined in § 600.511-80 of this chapter; and

Vehicle Lifetime Miles is 195,264 for passenger automobiles and 225,865 for light trucks.

(5) Total credits or debits generated in a model year, maintained and reported separately for passenger automobiles and light trucks, shall be the sum of the credits or debits calculated in paragraph (k)(4) of this section and any of the following credits, if applicable:

(i) Air conditioning leakage credits earned according to the provisions of § 86.1866-12(b);

(ii) Air conditioning efficiency credits earned according to the provisions of § 86.1866-12(c);

(iii) Off-cycle technology credits earned according to the provisions of § 86.1866-12(d).

(iv) N<sub>2</sub>O and/or CH<sub>4</sub> CO<sub>2</sub>-equivalent debits accumulated according to the provisions of § 86.1818-12(f)(4).

(6) Unused CO<sub>2</sub> credits shall retain their full value through the five subsequent model years after the model year in which they were generated. Credits available at the end of the fifth model year after the year in which they were generated shall expire.

(7) Credits may be used as follows:

(i) Credits generated and calculated according to the method in paragraphs (k)(4) and (5) of this section may not be used to offset deficits other than those deficits accrued with respect to the standard in § 86.1818. Credits may be banked and used in a future model year in which a manufacturer's average CO<sub>2</sub> level exceeds the applicable standard. Credits may be exchanged between the passenger automobile and light truck fleets of a given manufacturer. Credits may also be traded to another manufacturer according to the provisions in paragraph (k)(8) of this section. Before trading or carrying over credits to the next model year, a manufacturer must apply available credits to offset any deficit, where the deadline to offset that credit deficit has not yet passed.

(ii) The use of credits shall not change Selective Enforcement Auditing or in-use testing failures from a failure to a non-failure. The enforcement of the averaging standard occurs through the vehicle's certificate of conformity. A manufacturer's certificate of conformity is conditioned upon compliance with the averaging provisions. The certificate will be void ab initio if a manufacturer fails to meet the corporate average standard and does not obtain appropriate credits to cover its shortfalls in that model year or subsequent model years (see deficit carry-forward provisions in paragraph (k)(8) of this section).

(iii) *Special provisions for manufacturers using the Temporary Leadtime Allowance Alternative Standards.* (A) Credits generated by vehicles subject to the fleet average CO<sub>2</sub> standards specified in § 86.1818-12(c) may only be used to offset a deficit generated by vehicles subject to the Temporary Leadtime Allowance Alternative Standards specified in § 86.1818-12(e).

(B) Credits generated by a passenger automobile or light truck averaging set subject to the Temporary Leadtime Allowance Alternative Standards specified in § 86.1818-12(e)(4)(i) or (ii) of this section may be used to offset a deficit generated by an averaging set subject to the Temporary Leadtime Allowance Alternative Standards through the 2015 model year, except that manufacturers qualifying under the provisions of

§ 86.1818-12(e)(3) may use such credits to offset a deficit generated by an averaging set subject to the Temporary Leadtime Allowance Alternative Standards through the 2016 model year.

(C) Credits generated by an averaging set subject to the Temporary Leadtime Allowance Alternative Standards specified in § 86.1818-12(e)(4)(i) or (ii) of this section may not be used to offset a deficit generated by an averaging set subject to the fleet average CO<sub>2</sub> standards specified in § 86.1818-12(c)(2) or (3) or otherwise transferred to an averaging set subject to the fleet average CO<sub>2</sub> standards specified in § 86.1818-12(c)(2) or (3).

(D) Credits generated by vehicles subject to the Temporary Leadtime Allowance Alternative Standards specified in § 86.1818-12(e)(4)(i) or (ii) may be banked for use in a future model year (to offset a deficit generated by an averaging set subject to the Temporary Leadtime Allowance Alternative Standards). All such credits shall expire at the end of the 2015 model year, except that manufacturers qualifying under the provisions of § 86.1818-12(e)(3) may use such credits to offset a deficit generated by an averaging set subject to the Temporary Leadtime Allowance Alternative Standards through the 2016 model year.

(E) A manufacturer with any vehicles subject to the Temporary Leadtime Allowance Alternative Standards specified in § 86.1818-12(e)(4)(i) or (ii) of this section in a model year in which that manufacturer also generates credits with vehicles subject to the fleet average CO<sub>2</sub> standards specified in § 86.1818-12(c) may not trade or bank credits earned against the fleet average standards in § 86.1818-12(c) for use in a future model year.

(8) The following provisions apply if debits are accrued:

(i) If a manufacturer calculates that it has negative credits (also called “debts” or a “credit deficit”) for a given model year, it may carry that deficit forward into the next three model years. Such a carry-forward may only occur after the manufacturer exhausts any supply of banked credits. At the end of the third model year, the deficit must be covered with an appropriate number of credits that the man-

ufacturer generates or purchases. Any remaining deficit is subject to a voiding of the certificate ab initio, as described in this paragraph (k)(8). Manufacturers are not permitted to have a credit deficit for four consecutive years.

(ii) If debits are not offset within the specified time period, the number of vehicles not meeting the fleet average CO<sub>2</sub> standards (and therefore not covered by the certificate) must be calculated.

(A) Determine the gram per mile quantity of debits for the noncompliant vehicle category by multiplying the total megagram deficit by 1,000,000 and then dividing by the vehicle lifetime miles for the vehicle category (passenger automobile or light truck) specified in paragraph (k)(4) of this section.

(B) Divide the result by the fleet average standard applicable to the model year in which the debits were first incurred and round to the nearest whole number to determine the number of vehicles not meeting the fleet average CO<sub>2</sub> standards.

(iii) EPA will determine the vehicles not covered by a certificate because the condition on the certificate was not satisfied by designating vehicles in those test groups with the highest carbon-related exhaust emission values first and continuing until reaching a number of vehicles equal to the calculated number of non-complying vehicles as determined in this paragraph (k)(8). If this calculation determines that only a portion of vehicles in a test group contribute to the debit situation, then EPA will designate actual vehicles in that test group as not covered by the certificate, starting with the last vehicle produced and counting backwards.

(iv)(A) If a manufacturer ceases production of passenger cars and light trucks, the manufacturer continues to be responsible for offsetting any debits outstanding within the required time period. Any failure to offset the debits will be considered a violation of paragraph (k)(8)(i) of this section and may subject the manufacturer to an enforcement action for sale of vehicles not covered by a certificate, pursuant

to paragraphs (k)(8)(ii) and (iii) of this section.

(B) If a manufacturer is purchased by, merges with, or otherwise combines with another manufacturer, the controlling entity is responsible for offsetting any debits outstanding within the required time period. Any failure to offset the debits will be considered a violation of paragraph (k)(8)(i) of this section and may subject the manufacturer to an enforcement action for sale of vehicles not covered by a certificate, pursuant to paragraphs (k)(8)(ii) and (iii) of this section.

(v) For purposes of calculating the statute of limitations, a violation of the requirements of paragraph (k)(8)(i) of this section, a failure to satisfy the conditions upon which a certificate(s) was issued and hence a sale of vehicles not covered by the certificate, all occur upon the expiration of the deadline for offsetting debits specified in paragraph (k)(8)(i) of this section.

(9) The following provisions apply to CO<sub>2</sub> credit trading:

(i) EPA may reject CO<sub>2</sub> credit trades if the involved manufacturers fail to submit the credit trade notification in the annual report.

(ii) A manufacturer may not sell credits that are not available for sale pursuant to the provisions in paragraph (k)(6) of this section.

(iii) In the event of a negative credit balance resulting from a transaction, both the buyer and seller are liable. EPA may void ab initio the certificates of conformity of all test groups participating in such a trade.

(iv) (A) If a manufacturer trades a credit that it has not generated pursuant to paragraph (k) of this section or acquired from another party, the manufacturer will be considered to have generated a debit in the model year that the manufacturer traded the credit. The manufacturer must offset such debits by the deadline for the annual report for that same model year.

(B) Failure to offset the debits within the required time period will be considered a failure to satisfy the conditions upon which the certificate(s) was issued and will be addressed pursuant to paragraph (k)(8) of this section.

(v) A manufacturer may only trade credits that it has generated pursuant

to paragraphs (k)(4) and (5) of this section or acquired from another party.

(1) *Maintenance of records and submittal of information relevant to compliance with fleet average CO<sub>2</sub> standards—*

(1) *Maintenance of records.* (i) Manufacturers producing any light-duty vehicles, light-duty trucks, or medium-duty passenger vehicles subject to the provisions in this subpart must establish, maintain, and retain all the following information in adequately organized records for each model year:

(A) Model year.

(B) Applicable fleet average CO<sub>2</sub> standards for each averaging set as defined in paragraph (i) of this section.

(C) The calculated fleet average CO<sub>2</sub> value for each averaging set as defined in paragraph (i) of this section.

(D) All values used in calculating the fleet average CO<sub>2</sub> values.

(ii) Manufacturers producing any passenger cars or light trucks subject to the provisions in this subpart must establish, maintain, and retain all the following information in adequately organized records for each passenger car or light truck subject to this subpart:

(A) Model year.

(B) Applicable fleet average CO<sub>2</sub> standard.

(C) EPA test group.

(D) Assembly plant.

(E) Vehicle identification number.

(F) Carbon-related exhaust emission standard, N<sub>2</sub>O emission standard, and CH<sub>4</sub> emission standard to which the passenger car or light truck is certified.

(G) In-use carbon-related exhaust emission standard.

(H) Information on the point of first sale, including the purchaser, city, and state.

(iii) Manufacturers must retain all required records for a period of eight years from the due date for the annual report. Records may be stored in any format and on any media, as long as manufacturers can promptly send EPA organized written records in English if requested by the Administrator. Manufacturers must keep records readily available as EPA may review them at any time.

(iv) The Administrator may require the manufacturer to retain additional

records or submit information not specifically required by this section.

(v) Pursuant to a request made by the Administrator, the manufacturer must submit to the Administrator the information that the manufacturer is required to retain.

(vi) EPA may void ab initio a certificate of conformity for vehicles certified to emission standards as set forth or otherwise referenced in this subpart for which the manufacturer fails to retain the records required in this section or to provide such information to the Administrator upon request, or to submit the reports required in this section in the specified time period.

(2) *Reporting.* (i) Each manufacturer must submit an annual report. The annual report must contain for each applicable CO<sub>2</sub> standard, the calculated fleet average CO<sub>2</sub> value, all values required to calculate the CO<sub>2</sub> emissions value, the number of credits generated or debits incurred, all the values required to calculate the credits or debits, and the resulting balance of credits or debits. For each applicable alternative N<sub>2</sub>O and/or CH<sub>4</sub> standard selected under the provisions of § 86.1818-12(f)(3), the report must contain the N<sub>2</sub>O and/or CH<sub>4</sub> CO<sub>2</sub>-equivalent debits calculated according to § 86.1818-12(f)(4) for each test group and all values required to calculate the number of debits incurred.

(ii) For each applicable fleet average CO<sub>2</sub> standard, the annual report must also include documentation on all credit transactions the manufacturer has engaged in since those included in the last report. Information for each transaction must include all of the following:

- (A) Name of credit provider.
- (B) Name of credit recipient.
- (C) Date the trade occurred.
- (D) Quantity of credits traded in megagrams.
- (E) Model year in which the credits were earned.

(iii) Manufacturers calculating early air conditioning leakage and/or efficiency credits under paragraph § 86.1867-12(b) of this section shall include in the 2012 report, the following information for each model year separately for passenger automobiles and

light trucks and for each air conditioning system used to generate credits:

(A) A description of the air conditioning system.

(B) The leakage credit value and all the information required to determine this value.

(C) The total credits earned for each averaging set, model year, and region, as applicable.

(iv) Manufacturers calculating early advanced technology vehicle credits under paragraph § 86.1867-12(c) shall include in the 2012 report, separately for each model year and separately for passenger automobiles and light trucks, the following information:

(A) The number of each model type of eligible vehicle sold.

(B) The cumulative model year production of eligible vehicles starting with the 2009 model year.

(C) The carbon-related exhaust emission value by model type and model year.

(v) Manufacturers calculating early off-cycle technology credits under paragraph § 86.1867-12(d) shall include in the 2012 report, for each model year and separately for passenger automobiles and light trucks, all test results and data required for calculating such credits.

(vi) Unless a manufacturer reports the data required by this section in the annual production report required under § 86.1844-01(e) or the annual report required under § 600.512-12 of this chapter, a manufacturer must submit an annual report for each model year after production ends for all affected vehicles produced by the manufacturer subject to the provisions of this subpart and no later than May 1 of the calendar year following the given model year. Annual reports must be submitted to: Director, Compliance and Innovative Strategies Division, U.S. Environmental Protection Agency, 2000 Traverwood, Ann Arbor, Michigan 48105.

(vii) Failure by a manufacturer to submit the annual report in the specified time period for all vehicles subject to the provisions in this section is a violation of section 203(a)(1) of the Clean Air Act (42 U.S.C. 7522 (a)(1)) for

each applicable vehicle produced by that manufacturer.

(viii) If EPA or the manufacturer determines that a reporting error occurred on an annual report previously submitted to EPA, the manufacturer's credit or debit calculations will be recalculated. EPA may void erroneous credits, unless traded, and will adjust erroneous debits. In the case of traded erroneous credits, EPA must adjust the selling manufacturer's credit balance to reflect the sale of such credits and any resulting credit deficit.

(3) *Notice of opportunity for hearing.* Any voiding of the certificate under paragraph (1)(vi) of this section will be made only after EPA has offered the affected manufacturer an opportunity for a hearing conducted in accordance with § 86.614–84 for light-duty vehicles or § 86.1014–84 for light-duty trucks and, if a manufacturer requests such a hearing, will be made only after an initial decision by the Presiding Officer.

[75 FR 25691, May 7, 2010, as amended at 76 FR 19874, Apr. 8, 2011; 76 FR 39522, July 6, 2011; 76 FR 57379, Sept. 15, 2011]

**§ 86.1866–12 CO<sub>2</sub> fleet average credit programs.**

(a) *Incentive for certification of advanced technology vehicles.* Electric vehicles, plug-in hybrid electric vehicles, and fuel cell vehicles, as those terms are defined in § 86.1803–01, that are certified and produced in the 2012 through 2016 model years may be eligible for a reduced CO<sub>2</sub> emission value under the provisions of this paragraph (a) and under the provisions of part 600 of this chapter.

(1) Electric vehicles, fuel cell vehicles, and plug-in hybrid electric vehicles may use a value of zero (0) grams/mile of CO<sub>2</sub> to represent the proportion of electric operation of a vehicle that is derived from electricity that is generated from sources that are not on-board the vehicle.

(2) The use of zero (0) grams/mile CO<sub>2</sub> is limited to the first 200,000 combined electric vehicles, plug-in hybrid electric vehicles, and fuel cell vehicles produced and delivered for sale by a manufacturer in the 2012 through 2016 model years, except that a manufacturer that produces and delivers for sale 25,000 or more such vehicles in the 2012 model year shall be subject to a limitation on the use of zero (0) grams/mile CO<sub>2</sub> to the first 300,000 combined electric vehicles, plug-in hybrid electric vehicles, and fuel cell vehicles produced and delivered for sale by a manufacturer in the 2012 through 2016 model years.

(b) *Credits for reduction of air conditioning refrigerant leakage.* Manufacturers may generate credits applicable to the CO<sub>2</sub> fleet average program described in § 86.1865–12 by implementing specific air conditioning system technologies designed to reduce air conditioning refrigerant leakage over the useful life of their passenger cars and/or light trucks. Credits shall be calculated according to this paragraph (b) for each air conditioning system that the manufacturer is using to generate CO<sub>2</sub> credits. Manufacturers may also generate early air conditioning refrigerant leakage credits under this paragraph (b) for the 2009 through 2011 model years according to the provisions of § 86.1867–12(b).

(1) The manufacturer shall calculate an annual rate of refrigerant leakage from an air conditioning system in grams per year according to the provisions of § 86.166–12.

(2) The CO<sub>2</sub>-equivalent gram per mile leakage reduction to be used to calculate the total credits generated by the air conditioning system shall be determined according to the following formulae, rounded to the nearest tenth of a gram per mile:

(i) Passenger automobiles:

$$\text{Leakage Credit} = \text{MaxCredit} \times \left[ 1 - \left( \frac{\text{Leakage}}{16.6} \right) \times \left( \frac{\text{GWP}_{\text{REF}}}{\text{GWP}_{\text{HFC134a}}} \right) \right]$$

Where:

MaxCredit is 12.6 (grams CO<sub>2</sub>-equivalent/mile) for air conditioning systems using